

Appl. No. 09/693,605  
Amendment dated April 5, 2006  
Reply to Office Action of October 6, 2005

**Remarks/Arguments**

**STATUS OF CLAIMS**

Claims 1 and 28 have been amended, and unelected claims 29-39, 71-97, and 100-120 have been canceled, such that claims 1-28, 40-70, and 98-99 are currently pending in the application. Note: In a previous response, dated July 12, 2005, the Applicant elected to pursue claims 1-28, 40-70, and 98-99 in response to a restriction requirement; the unelected claims were inadvertently not expressly canceled at that time.

**REMARKS/ARGUMENTS**

In the Office Action date October 6, 2005, the Examiner:

rejected claims 1-2, 5-8, 10-28, 40-52, 54-57, 63-66, and 98-99 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,495,533 (hereinafter referred to as "Linehan");

rejected claims 3-4, 53-54, 58-59, 67-69, 71-72, and 74-79 under 35 U.S.C. §103(a) as being unpatentable over Linehan in view of U.S. Patent No. 5,764,772 ("Kaufman"); and

rejected claims 60-62 and 71-72 under 35 U.S.C. §103(a) as being unpatentable over Linehan in view of Kaufman and further in view of U.S. Patent No. 6,199,113 ("Alegre").

1. *Insufficiency of at Least Some Rejections.*

37 CFR §1.104(c)(2) states:

In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When the reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

In that regard, MPEP §706 further states that "[t]he goal of examination is to clearly articulate any rejection early in the prosecution process so that the applicant has the opportunity to provide evidence of patentability and otherwise reply completely at the earliest opportunity".

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In the present application, the Examiner appears in several instances to have rejected claims without any consideration for the particular limitations present in those claims, or, at least, no indication of any such consideration is present in the Office Action. More specifically, in several instances the Examiner has grouped a number of claims and then rejected the group based upon an assertion that is relevant to less than all of the claims of the group. Examples of these claims, the rejections of which are wholly unsupported, as discussed below, include 2, 6, 8, 10, 11, 15, 17, 18, 23, 27, 42, 43, 44, 46, 48, 50, and 66.

The Applicant respectfully requests that the Examiner either provide specific grounds for rejecting each limitation in each claim or allow those claims for which no such specific grounds exist. It is the Examiner's initial burden to show that the claims are unpatentable (which is not met by mere unsupported rejections); absent such a showing, the Applicant has no burden to show that the claims are patentable.

To be clear: The Applicant is not arguing that the Examiner's rejections are unconvincingly supported, or that the Examiner cannot reject claims as a group; instead, the Applicant is asserting that the Examiner has provided no support whatsoever for the rejections of at least the listed claims, and that the Examiner cannot reject claims as group when the asserted support for the rejection of the group is not relevant to, or does not address, all of the claims included in the group.

2. *State of the Law with Respect to 35 U.S.C. §102(b).*

35 U.S.C. §102(b) states, in relevant part, that "[a] person shall be entitled to a patent unless the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States." For rejections based on anticipation, there is no question of obviousness or modification of the reference, rather a single reference must teach each, every, and all aspects of the claimed invention either explicitly or impliedly, and any feature not directly taught must be inherently present. MPEP §§706.02 and 2131 citing Verdegaal Bros. v. Union Oil Co. Of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the...claim." MPEP

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§§706.02 and 2131 citing Richardson v. Suzuki Motor Co., 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Furthermore, a prior art device can perform all of the functions of a claimed apparatus and yet not anticipate the claimed apparatus if the claimed apparatus and the prior art device are structurally distinguishable. MPEP §2114 citing In re Robertson, 49 USPQ2d 1949, 1951 (Fed. Cir. 1999). Thus, a rejection under 35 U.S.C. §102(b) is overcome by amending the claims to patentably distinguish over the prior art and/or persuasively arguing that the claims are patentably distinguishable from the cited prior art reference. MPEP §706.02(b).

3. Linehan does not disclose each, every, and all aspects of the claimed invention.

Linehan does not disclose each, every, and all aspects of the claimed invention, and therefore does not anticipate claims 1-2, 5-8, 10-28, 40-52, 54-57, 63-66, and 98-99 under 35 USC §102(b).

With regard to claims 1, 6-8, 10, 17-21, 26-28, 40-44, and 98-99, the Examiner has specifically cited col. 4, lines 1-26, and col. 7, lines 30-67, for support for his rejections. Lines 1-18 of col. 4 concern reference citations which do not, on their face, appear relevant to the rejections. Lines 19-26 concern several objects, or purposes, of Linehan's invention, specifically: (1) "to provide an improved computing system", and (2) "to provide an improved computing system having improved security". Line 26 falls within the statement of a third object: (3) "to provide an improved computing system having improved security in a distributed computing environment". Clearly, these are exceedingly general statements having very little relevance to the patentability of any of the claims of the present application, and therefore provide no support for the rejections.

Lines 30-67 of col. 7 concern Linehan's basic method:

[E]ach data file is encrypted by the Personal Key Client, on the user's computer, using a randomly-chosen key generated by the Personal Key Server at the time the file is created. The key is stored in the Personal Key Database located on the Personal Key Server...

The Personal Key Server Database contains an entry for each file that is encrypted. these files are indexed by information that identifies the files... Each entry contains the key used to encrypt the corresponding file...

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When a file is created...the Personal Key Server randomly generates a file encryption key, creates a new entry in the database, and responds to the Personal Key Client with the file encryption key. The Personal Key Client then uses the key to encrypt the data as it is written to the file.

When a file is accessed...the [Personal Key Server] retrieves the appropriate entry in the database and checks the identity of the accessor...against the file owner's name and the access control list in the database entry. If the accessor is either the owner or one of the users named in the access control list, the Server sends the file encryption key back to the Personal Key Client. The latter uses the key to decrypt the data as it is read from the file.

Though the Examiner has pointed generally to the foregoing as support for his rejections, he has failed to identify a specific structure or step that corresponds to each and every claim limitation. In fact, the disclosure contradicts the Examiner's assertions. In Linehan, the file is encrypted and stored on the user's computer while the encryption key is generated and stored on the Personal Key Server. More specifically, the Personal Key Server Database contains an encrypted entry for each encrypted file, and the entry contains the key used to encrypt the encrypted file. On the Personal Key Database, the entry is indexed by information that identifies the file – not the key. And so, when it is desired to access the encrypted file stored on the user's computer, the Personal Key Client queries the Personal Key Server with information identifying the file, the Personal Key Server retrieves the key based upon the information and provides it to the Personal Key Client, and the Personal Key client decrypts the file.

This distinction is important: Linehan uses some aspect or property of the encrypted data file, such as the names, creation dates, or hash values, as a pointer to the encryption key. This is problematic because these aspects or properties are either subject to change or are insufficient by themselves to provide distinct identification. By contrast, the present invention uses a randomly-generated encryption key identification which both does not change and is sufficient to provide distinct identification.

If the Examiner persists in asserting that Linehan discloses the claimed encryption key identification, the Applicant respectfully requests that the Examiner specifically identify the structure or step which he believes corresponds thereto so that the Applicant can, in turn, specifically refute the correspondence.

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Thus, Linehan does not disclose a data structure comprising an encrypted data entity having a searchable attribute and an encryption key identification corresponding to the encryption key, as required by the rejected claims.

Furthermore, with regard specifically to claims 6 and 8, the Examiner has failed to identify in Linehan, or even to assert that Linehan discloses, the limitations involving dynamic encryption. With regard specifically to claim 10, the Examiner has failed to identify in Linehan, or even to assert that Linehan discloses, the limitation involving an integrity attribute. With regard specifically to claim 17, the Examiner has failed to identify in Linehan, or even to assert that Linehan discloses, the limitation involving a plurality of attributes. With regard specifically to claim 18, the Examiner has failed to identify in Linehan, or even to assert that Linehan discloses, the limitation involving a second data entity including as attributes the encryption key and the encryption key identification. With regard specifically to claim 27, the Examiner has failed to identify in Linehan, or even to assert that Linehan discloses, the limitation involving the first data entity containing medical patient name information, and the second data entity containing medical patient address information. With regard specifically to claims 42 and 43, the Examiner has failed to identify in Linehan, or even to assert that Linehan discloses, the limitations involving the request for the data manipulation comprising, respectively, a data update or an addition of new information, and further comprising encrypting the new information with a second encryption key. With regard specifically to claim 44, the Examiner has failed to identify in Linehan, or even to assert that Linehan discloses, the limitations involving the request for the data manipulation comprising a request to view current information, and further comprising encrypting the viewed information with a second encryption key. The Examiner has clearly failed to provide any discussion or support whatsoever for his rejections of these claims, and appears to not have considered them at all.

The Examiner has also dismissed claims 2, 5, 11, 13-16, 22-25, 45-50, and 66 with the simple assertion that "Linehan discloses wherein the at least one encryption key identification is encrypted by a system key". In fact, Linehan discloses only a control key which is used to

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encrypt the encryption key (see col. 9, lines 10-18); Linehan does not disclose either an encryption key identification or a system key for encrypting the encryption key identification.

Furthermore, with regard specifically to claim 2, the Examiner has failed to identify in Linehan, or even to assert that Linehan discloses, the limitation involving the system key common name being stored in association with the data entity. With regard specifically to claim 11, the Examiner has failed to identify in Linehan, or even to assert that Linehan discloses, the limitation involving the data structure further comprising a system key attribute of the data entity, the security key attribute including the at least one encryption key identification and system key common name. With regard specifically to claims 14 and 46, the Examiner has failed to identify in Linehan, or even to assert that Linehan discloses, the limitation involving storing the system key on a security token. With regard specifically to claim 15, the Examiner has failed to identify in Linehan, or even to assert that Linehan discloses, the limitation involving the security token comprising a smart card. With regard specifically to claims 23 and 48, the Examiner has failed to identify in Linehan, or even to assert that Linehan discloses, the limitation involving the system key comprising a public system key. With regard specifically to claim 50, the Examiner has failed to identify in Linehan, or even to assert that Linehan discloses, the limitation involving storing the system key common name in association with the data entity. With regard specifically to claim 66, the Examiner has failed to identify in Linehan, or even to assert that Linehan discloses, the limitation involving encrypting the encryption key identification with a system key having a system key common name, and maintaining the system key within a security domain at all times. The Examiner has clearly failed to provide any discussion or support whatsoever for his rejections of these claims, and appears to not have considered them at all.

The Examiner has also rejected claims 12, 51-52, 55-57, 63-65, 70, and 73, relying on the assertion that Linehan discloses an encryption key identification. As discussed, however, it does not.

Thus, Linehan does not disclose each, every, and all aspects of the claimed invention, nor are the undisclosed aspects inherently present. For at least the reasons discussed above, Linehan

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does not anticipate claims 1-2, 5-8, 10-28, 40-52, 54-57, 63-66, and 98-99, and therefore the Examiner's rejections of those claims are improper and have been overcome.

4. *State of the Law with Respect to 35 U.S.C. §103(a).*

When rejecting claims under 35 U.S.C. §103, MPEP §2142 places upon the Examiner the initial burden of establishing a prima facie case of obviousness. If the Examiner fails to establish the requisite prima facie case, the rejection is improper and will be overturned. *In re Rijckaert*, 28 USPQ2d 1955 (Fed. Cir. 1993). Only if the Examiner's burden is met does the burden shift to the applicant to provide evidence to refute the rejection.

The Examiner must satisfy three criteria in order to establish the requisite prima facie case: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine their teachings; (2) there must be a reasonable expectation of success; and (3) the prior art reference (or combination of references) must teach or suggest all the claim limitations. MPEP §706.02(j), citing *In re Vaeck*, 20 USPQ2d 1438 (Fed. Cir. 1991). Furthermore, "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." *In re Fritch*, 23 USPQ2d 1780 (Fed. Cir. 1992); see also *In re Gordon*, 221 USPQ2d 1125 (Fed. Cir. 1984). Additionally, "if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." MPEP §2143.01.

In meeting this initial burden, the Examiner "cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention" *In re Fine*, 5 USPQ 2d 1596 (Fed. Cir. 1988). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on the applicant's disclosure. *In re Vaeck*, 1442. Thus, "[m]easuring a claimed invention against the standard established by section 103 requires the oft-difficult but critical step of casting the mind back to the time of invention, to consider the thinking of one of ordinary

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skill in the art, guided only by the prior art references and the then-accepted wisdom in the field." W. L. Gore & Assoc., Inc. v. Garlock, Inc., 220 USPQ 303 (Fed. Cir. 1983).

5. The Examiner has failed to establish the requisite *prima facie* case.

The combination of Linehan and Kaufman does not disclose each, every, and all aspects of the claimed invention, and does not suggest to or motivate one with ordinary skill to modify the references to arrive at the claimed invention, and therefore does not render obvious claims 3-4, 53-54, 58-59, 67-69, 71-72, and 74-79 under 35 U.S.C. §103(a).

With regard specifically to claim 9, the Examiner has failed to identify in the references, or even to assert that the references disclose or suggest, the limitation involving the data structure comprising a plurality of hash values with each of the searchable attributes having a corresponding hash value.

The Examiner has also rejected claims 54, 58-59, 67-69, 71-72, and 74-79, relying on the assertion that Linehan discloses an encryption key identification. As discussed, however, it does not.

Similarly, the combination of Linehan, Kaufman, and Alegre does not disclose each, every, and all aspects of the claimed invention, and does not suggest to or motivate one with ordinary skill to modify the references as asserted, and therefore does not render obvious claims 60-62 and 71-72 under 35 U.S.C. §103(a).

With regard specifically to claim 60, the Examiner has failed to identify in the references, or even to assert that the references disclose or suggest, the limitation involving transmitting the data entity over a data transmission line, and wherein encrypting the data entity comprises encrypting only a portion of the data entity in accordance with a business rule.

Thus, the combinations of references fail to teach or suggest all of the limitations of the claims. As the Examiner has failed to establish the requisite *prima facie* case of obviousness, the Applicant respectfully asserts that Examiner's rejections of claims 3-4, 53-54, 58-59, 60-62, 67-69, 71-72, and 74-79 under 35 U.S.C. §103(a) are improper and have been overcome.

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**CONCLUSION**

The above Amendment is fully responsive to the office action dated October 6, 2005. The Application asserts that the claims are in condition for allowance, and respectfully requests a corresponding Notice of Allowance. If there are any matters which can be further clarified by telephone, the Examiner is requested to contact the undersigned attorney.

The Office is authorized to charge any fees due or credit any overpayments in connection with the filing of this paper to Deposit Account No. 50-0354.

SPENCER FANE BRITT & BROWNE LLP

Dated: May 1, 2006

By: Gerhard P. Shipley  
Gerhard P. Shipley, Reg. No. 45,682  
Spencer Fane Britt & Browne LLP  
1000 Walnut, Suite 1400  
Kansas City, MO 64106  
Tele: 816-474-8100